



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,266	03/12/2004	Takashi Sato	ASM-P-04-001	9124

29013 7590 07/13/2006

PATENTS+TMS, P.C.  
2849 W. ARMITAGE AVE.  
CHICAGO, IL 60647

EXAMINER

KAYRISH, MATTHEW

ART UNIT PAPER NUMBER

2627

DATE MAILED: 07/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/800,266	SATO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Matthew G. Kayrish	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soga et al (US Patent Number 5737304), in view of Kelsic et al (US Patent Number 6536555).

Regarding claim 1, Soga et al disclose:

A disc drive for at least reproducing data recorded in an optical disc, comprising:

A main body (figure 1, item 1) having an outer case (figure 25, items 112 & 113) made from metal plates (column 7, lines 61-65);

A disc tray (figure 3, item 2) which is movable with respect to the main body between a loaded position at which an optical disc is loaded (column 6, lines 26-32) in the main body (figure 26) and an ejected position at which an optical disc can be placed on or removed (column 6, lines 35-41) from the disc tray (see figures 2 & 3);

A chassis (figure 25, item 9) provided within the main body so as to be displaceable (figures 25 & 26, chassis moves);

An optical disc rotating mechanism (figure 26, item 12) provided on the chassis (figures 25 & 26 display movement) and having a turntable for rotating the optical disc (figure 8, item 6), the optical disc rotating mechanism being displaceable between a

raised position and a lowered position in accordance with the displacement of the chassis (figures 25 & 26 show the displacement between the two positions); and

A disc clamber (figure 25, item 8) provided on a top plate (figure 24, item 11 is the unlabeled plate holding clamber [8] and stretching across from right side to left side) of the outer case in a freely rotatable manner (column 8, lines 9-11), the disc clamber being adapted to hold the optical disc between the disc clamber and the turntable when the turntable is displaced to the raised position (column 9, lines 14-20);

Soga et al. fail to disclose:

A disc drive for at least reproducing data recorded in an optical disc; wherein the outer case is provided with an overlapping portion on at least one surface thereof, the overlapping portion including another metal plate superimposed onto the metal plate of the surface so that these plates are joined together through a pressure sensitive adhesive layer containing a pressure sensitive adhesive and/or an adhesive, and an area of the overlapping portion occupies more than 15% of a projected area of the surface in which the overlapping portion is provided.

Kelsic et al disclose:

A disc drive for at least reproducing data recorded in an optical disc; wherein the outer case (figure 2, item 104) is provided with an overlapping portion on at least one surface thereof (figure 2, item 134 overlaps 104), the overlapping portion including another metal plate (column 4, lines 65-67 & column 5, lines 1-5) superimposed onto the metal plate of the surface (figure 3, item 136 is superimposed on 104) so that these plates are joined together through a pressure sensitive adhesive layer (figure 3, item 138)

containing a pressure sensitive adhesive (column 5, lines 12-21) and/or an adhesive, and an area of the overlapping portion occupies more than 15% of a projected area of the surface in which the overlapping portion is provided (figure 2, item 134 covers more than 15%).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace Soga et al's outer case [12] with the lid cover of Kelsic et al, because the lid cover of Kelsic et al provides for vibration damping, because of its rigid layers, alternated with its pressure sensitive adhesive layers. The rigid layers will help keep the lid cover stable from vibrations, and the soft adhesive layers will help to absorb the minimal vibrations that do occur. This combination provided on a lid will provide for a very stable and accurate read on the signal, and will also allow a clean signal to be written.

Regarding claim 2, Soga et al, in view of Kelsic et al disclose:

The disc drive as claimed in claim 1, wherein the top plate (figure 24, item 11) is formed with a concave disc clamper mounting portion (figure 25, item 11a) having an opening (figure 25, clamper is protruding through the opening) for rotatably mounting the disc clamper (column 8, lines 15-18), and the outer case is provided with a protecting plate (figure 25, item 112) which is superimposed onto the outer surface of the top plate (figure 25, item 11 is covered by item 112) so as to cover the disc damper mounting portion (figure 25, item 11a is covered) through the pressure sensitive adhesive layer (replacing the cover of Soga et al's cover with Kelsic et al's cover would place the pressure sensitive portion above the clamper. Kelsic et al provides (figure 2, items 142 & 146) a proper place where the clamper would be), wherein a portion where the protecting

plate and the top plate are joined through the pressure sensitive adhesive layer forms the overlapping portion (Kelsic et al's protective plate [136] is joined, through the pressure sensitive adhesive layer [138], to the top plate of his disc drive. They are adjoined to form the overlapping portion above the place where the clamper would be, right under [142] & [146]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace Soga et al's outer case [12] with the lid cover of Kelsic et al, because the lid cover of Kelsic et al placed on the disc drive of Soga et al would provide stability to the disc clamper. The adhesive layers would absorb the vibrations, and the metal plates would provide rigidity to the lid cover. With the clamper mounted to the lid cover, stability would be necessary for recording and reproducing an accurate and high quality signal. The disc clamper is in constant contact with the disc, therefore, stability, without vibrations will allow an accurate signal to be recorded and reproduced.

Regarding claim 3, Soga et al, in view of Kelsic et al disclose:

The disc drive as claimed in claim 2, wherein the disc clamper mounting portion is formed by depressing the top plate inwardly (figure 25, item 11 is pressed inwardly as indicated by the circular hole in 11a)

Regarding claim 4, Soga et al fail to disclose:

A disc drive, wherein the pressure sensitive adhesive layer is formed from a double-sided pressure sensitive adhesive sheet.

Kelsic et al disclose:

A disc drive, wherein the pressure sensitive adhesive layer is formed from a double-sided pressure sensitive adhesive sheet (figure 3, item 138 is double sided).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Soga et al with a double sided pressure sensitive adhesive sheet, because a double sided adhesive sheet will ensure that both the top plate as well as the bottom plate will stay in the correct position.

Regarding claim 5, Soga et al fail to disclose:

The disc drive as claimed in claim 1, wherein the pressure sensitive adhesive layer includes a base material and a pressure sensitive adhesive agent provided on the both sides of the base material, in which the total thickness of the pressure sensitive adhesive layer is in the range of 0.04 to 0.5 mm.

Kelsic et al disclose:

The disc drive as claimed in claim 1, wherein the pressure sensitive adhesive layer includes a base material and a pressure sensitive adhesive agent provided on the both sides of the base material (figure 3, the sandwiched layer [136] is between 2 layers [138] of adhesive material), in which the total thickness of the pressure sensitive adhesive layer is in the range of 0.04 to 0.5 mm (column 5, lines 5-11 & lines 38-42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Soga et al with a double sided pressure sensitive adhesive sheet, because a double sided adhesive sheet will ensure that both the top plate as well as the bottom plate will stay in the correct position. Furthermore, as a matter of obvious design choice and absent of any criticality, it would have been obvious to use these thicknesses, as

they are well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to manufacture adhesive layers of these thicknesses for simplicity to allow for the cheapest possible manufacturing cost.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew G. Kayrish whose telephone number is 571-272-4220. The examiner can normally be reached on 8am - 5pm M-F.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Matthew G. Kayrish

6/30/2006

MK

  
6/30/2006  
ANDREA WELLINGTON  
SUPERVISORY PATENT EXAMINER